

- Fig. 10.* The same. Young form of the quadrilocular statoblast, before the cellular coat &c. is added. *aaaa*, cavities of the young statoblastlets respectively; *bbbb*, chitinous coats; *cccc*, apertures respectively.
- Fig. 11.* The same. *a*, surface of the cellular coat, or crust; *b*, vertical section of the same, to show the hexagonal form of the cells, and their resemblance to plant-structure.
- Fig. 12.* *Parmula Brownii*. Portion of the crust, or cellular coat, much magnified, to show that it is composed of spherical cells of variable diameter heaped together irregularly.

XXXIX.—*Descriptions of new Species of Lepidoptera from Tenasserim.* By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

THE Lepidoptera described in the present paper form part of a fine series of rare and interesting species collected in the Thoungyeen valley by Capt. Charles Bingham, and generously presented by him to the national collection.

Among the more valuable species in this series the following are worthy of note:—

Several new or interesting members of the subfamily Euplocæinæ, amongst which is one supposed to be *E. Adamsonii*, Marshall, and which is my *E. margarita*; *Thaumantis pseudaliris* (the type of which was collected in Malacca); *T. Louisa*; *Penthema Binghami* and *P. darlisa*; males of a *Charaxes* (apparently *C. scylax*); *Papilio zaleucus*, *P. evan*, and *P. telearchus*; also both sexes of *Adolias xiphiones*, the male only of which was previously known to me.

RHOPALOCERA.

1. *Loesa fervida*, sp. n.

Allied to *L. oroatis* of Hewitson. Above bright orange-ferruginous, with dusky diffused brownish external borders to the wings; primaries with a small blackish blind ocellus on the first median interspace, its zone a little clearer than the ground-colour: body brownish. Under surface olivaceous brown; basal two thirds of wings darker than the outer third, crossed in the middle by a slender blackish angulated line, and limited externally by a slender lilac stripe: primaries with small white-pupilled black ocelli, with narrow yellow iris, dusky margin, and pale zone on the upper radial and first median interspaces: secondaries with eight ocelli, all small, the fourth and eighth mere points, the fifth largest;

two very indistinct pale submarginal stripes. Expanse of wings 53 millim.

Thoungyeen valley.

In shape this species agrees better with *Lohora dexamena*, but it is not allied to that insect.

2. *Ypthima Marshallii*, sp. n.

Allied to *Y. methora*; similar in shape: wings above brownish grey; basal area more dusky than the external area: primaries with a large oval subapical black ocellus, bipupillated with silver, and with dusky-bordered pale straw-coloured iris; an ill-defined submarginal dusky line: secondaries crossed beyond the middle by an oblique subangulated indistinct dusky line; a small blind ocellus on the second subcostal interspace; two large round unipupillate ocelli on the median interspaces, and two minute blind ocelli placed transversely near the anal angle; a wavy dusky submarginal line; base and an abdominal streak dark grey: body blackish. Under surface whitish stone-brown, finely reticulated with grey; crossed in the middle by two subparallel dusky stripes, those of the primaries most distinct and tinted with yellowish; disk of primaries whiter than the rest of the surface; ocellus as above: secondaries with all the ocelli very minute; an additional punctiform ocellus on first subcostal interspace. Expanse of wings 42 millim.

Meplay, Thoungyeen valley, 11th March 1882.

I have named this species, which appears to be quite constant, after Captain Marshall, who is now engaged upon an illustrated work upon the butterflies of India; the figures in this work, although uncoloured, promise to be extremely useful to collectors.

Of the genus *Lethe* Captain Bingham obtained *Lethe arcadia*, which was previously known from Java; a species probably referable to *L. kansa* of Darjiling; another probably conspecific with *L. alberta* of Benares, though differing from the type of that species in having five instead of four large ocelli on the upper surface of the secondaries, and lilacine instead of greenish zones to the ocelli on the underside*; lastly, the common and widely-distributed *L. europa*.

3. *Papilio tavoyanus*, sp. n.

Greatly resembles a member of the subfamily Euploëinæ to which Mr. Moore has given the above specific name: wings

* A nearly allied though apparently distinct species found in Darjiling has sericeous pink zones to the ocelli.

above reddish piceous : primaries darker than the secondaries, but with a paler almost clay-coloured external border, wide upon the costa, but tapering rapidly towards the external angle, its inner edge regularly arched ; a large elongated spot within the extremity of the cell, and an oblique series of about six narrow streaks between the veins from the upper radial to the interno-median interspace dull blue : secondaries with a sordid white submarginal band, crossed by numerous longitudinal brown lines on the veins and folds, much as in *Euplœa alcatheæ*, and followed by an imperfect series of whitish spots ; a small ochreous spot surmounted by a black crescent at anal angle : body velvety black, spotted with white. Wings below uniformly reddish brown ; secondaries with the band of white streaks united to the outer spots ; anal spot as above. Expanse of wings 87 millim.

Thoungyeen valley, 26th February 1882.

HETEROCERA.

4. *Epyrgis Binghami*, sp. n.

Nearest to *E. pieridoides* of Herrich-Schäffer : primaries above similarly marked, with black veins and blotches, but the ground-colour of a purer white tint, and the costal, subcostal, and median veins clothed with emerald-green or blue scales : secondaries white at base and near the borders, but the whole central area covered by a bright chrome-yellow patch ; costal and discocellular veins bluish ; a narrow black external border, from which tapering streaks run inwards upon the veins from the costal to the first median branch : thorax above emerald-green, spotted with white ; abdomen bronze greenish, with a double series of spots, and the hind margins of the segments white. Primaries below with the base of the cell and all the veins green, but the blotches black as above : secondaries nearly as above, but the costal and discocellular veins black and the outer border green ; pectus blue-green : legs brown and green above, white below ; venter white, with a lateral series of greenish-black dashes. Expanse of wings 75 millim.

"Toonyah," Thoungyeen valley, 20th October 1881.

5. *Histia cometaris*, sp. n.

♂. Form of *H. flabellicornis* ; style of coloration of *H. selene*. Primaries above black to beyond the middle ; grey, with dusky borders, black veins, and broad black longitudinal internervular stripes on the external area : secondaries above black, with the veins green ; abdominal area soft greyish

green to beyond the middle, the green area terminating abruptly in a large trifold white spot, above which, and just within the end of the cell, are two small squamose white dashes: head and collar carmine, spotted with black; thorax black; a carmine U-shaped marking on the metathorax; abdomen rosy carmine, with a dorsal series of black spots, which are large and quadrate towards the base. Primaries below grey, tinted with green towards the base, and marked with broad black internervular streaks: secondaries nearly as above: body below rosy carmine; legs and proboscis brown; venter with lateral black spots. Expanse of wings 81 millim.

Thoungyeen valley, Tenasserim.

6. *Milionia pyrozonis*, sp. n.

Nearly allied to *M. zona* of Moore, from Darjiling, but altogether more brilliant in colour; the veins towards the base of the wings brilliantly steel-blue, more so than in *M. lativitta* (*pulchrinervis*, Felder); the band across the primaries and the external half of secondaries deep fiery orange, shot with rose-pink, instead of cadmium-yellow; the inner edge of the orange area of secondaries almost straight, instead of arched, and the marginal black oval spots generally smaller; the body brilliant Prussian-blue, more or less tinted with green. Expanse of wings 65 millim.

Houndraw, Thoungyeen valley, 29th December 1881, and 25th March 1882.

Had I only seen a single example of this species I should have supposed it to be a very highly coloured and broadly bordered variety of the Darjiling species, of which we possess five specimens. I have, however, seen four of the Tenasserim species, all perfectly uniform in pattern and coloration.

7. *Euschema lunulata*, sp. n.

Intermediate between *E. Roepstorffi* of the Andamans and *E. bellona* of Moulmein and North India; distinguishable from both by the more oblique subapical series of white spots on the primaries, thus leaving the bluish series and the white series distinct, as in *E. militaris*; from *E. Roepstorffi* it also differs in having bright chrome-yellow (instead of grey-blue) lunate markings beyond the yellow area of the secondaries; and from *E. bellona* in the number of these yellow markings, which in that species are obliterated excepting towards the abdominal margin, and in its narrower purplish-black external border. Expanse of wings 85 millim.

Thoungyeen valley, 27th March 1882.

Mr. Moore has Burmese specimens of this species in his cabinet with *E. bellona*.

Captain Bingham also took *E. excubitor* in the Thoungyeen valley on the 25th February.

XI.—*On the Species of Ocypoda* in the Collection of the British Museum.* By EDWARD J. MIERS, F.L.S., F.Z.S., Assistant in the Zoological Department.

[Plate XVII.]

HAVING had occasion to rearrange and rename the specimens of this genus in the collection of the British Museum, with the aid of Mr. J. S. Kingsley's recently published revision†, I have thought it would be useful to publish the following notes on the species represented in the national collection (among which are included nearly all the well-established ones), to indicate at the same time the few which are *desiderata*, and to describe and figure with more precision than has been hitherto done their principal distinctive characters, especially such as are afforded by the form of the antero-lateral angle of the carapace (or exterior orbital angle) and by the structure of the stridulating-ridge, which is developed upon the inner surface of the palm or penultimate joint of the larger chelipede in nearly all the species, and to which particular attention has been drawn by Dr. J. G. De Man in his careful account of the species in the collection of the Leyden Museum‡.

In this memoir certain forms are characterized which are not included in the revision of the American naturalist, whose material seems to have been insufficient for the correct identification of some of the Old-World species.

In the following notes I have usually followed De Man pretty closely in his definitions (so far as they serve); and I

* This generic name has been variously written *Ocypoda* and *Ocypode* by authors. I myself formerly adopted the latter; but perhaps the former mode of spelling the word (although not that of Fabricius) is preferable, as being etymologically more correct. It would be merely productive of additional confusion to adopt (as I have been advised) *Ocypus* in place of either, since this word has been used by a later author (Kirby, in 1819) for a genus of Coleoptera.

† "Revision of the Genus *Ocypoda*," in Proc. Acad. Nat. Sci. Philad. pp. 179–186 (1880).

‡ Notes from the Leyden Museum, iii. pp. 245–256 (1881).